

**MONTEREY BAY UNIFIED AIR POLLUTION CONTROL DISTRICT
TITLE V OPERATING PERMIT**

24580 Silver Cloud Court
Monterey, CA 93940
Telephone: (408) 647-9411

ISSUED TO:

Texaco Exploration & Production, Inc.
P.O. Box 5197X
Bakersfield, CA 93388

PLANT SITE LOCATION:

Sargent Canyon Road
San Ardo, CA 93450

ISSUED BY:

Douglas Quetin, Air Pollution Control Officer

Date

Nature of Business: Crude Oil Production

SIC Code: 1311 - Crude Petroleum and Natural Gas

RESPONSIBLE OFFICIAL:

Name: Mr. Dean A. Bears
Title: Assistant Division Manager, Bakersfield Region
Phone: (805) 392-2200

FACILITY CONTACT PERSON:

Name: Mr. Mike Polyniak
Title: Environmental Coordinator
Phone: (805) 762-8323

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FACILITY DESCRIPTION

Texaco Exploration & Production Inc. operates a crude oil production facility in the San Ardo Field in Southern Monterey County. Texaco's operation includes both primary and tertiary crude oil production wells.

These production wells are supported by several categories of equipment necessary to recover heavy crude oil from the production zones. These categories include: 1) steam generators; 2) produced crude oil storage tanks; 3) oil and water separation equipment including heater treaters, free water knockout vessels, and produced water tanks; 4) well head casing vent vapor collection system and desulfurization plant; 5) waste water treatment plant including gas flotation units and skim tanks; and 6) oil drilling/workover rigs.

Texaco's facility is considered a federal Major Source and subject to the Title V permitting program due to the potential to emit oxides of nitrogen (NO_x) and sulfur dioxide (SO₂).

EQUIPMENT DESCRIPTION

OIL PRODUCTION FACILITY CONSISTING OF:

1. Oil Production Wells.
2. Steam Injection Wells.
3. Drilling Rigs With Diesel Fired Internal Combustion Engines.
4. Forty-seven Steam Generators As Follows:
 - A) Ten Steam Generators (Identification Numbers 126-20, FH-2, R3-1-20, R3-6-20, North 20-1, North 20-2, North 20-3, SOW 1, Westside 20-1 And Westside 20-2), Fired Only By Natural Gas, Propane, Butane, Liquefied Petroleum Gas, Or Any Combination Thereof, Maximum Rated Heat Input 25 MMBtu/Hr.
 - B) Eight Steam Generators (Identification Numbers South 50-1 Through South 50-8), Vented To A Ducon Venturi Scrubber System And Stack Via Common Exhaust Duct, Crude Oil Or Natural Gas Fired, Maximum Rated Heat Input 60 MMBtu/Hr.
 - C) Sixteen Steam Generators With Wet Scrubber Systems (Identification Numbers North 50-1, North 50-3, North 50-5, North 50-7, North 50-9, North 50-11 And Aurignac North 50-1 Through Aurignac North 50-10), Crude Oil Or Natural Gas Fired, Maximum Rated Heat Input 62.5 MMBtu/Hr.
 - D) Eleven Steam Generators With Wet Scrubber Systems (Identification Numbers 121-50, R1-1-50, R1-2-50, R1-4-50, R1-5-50, R3-2-50, North 50-2, North 50-4, North 50-6, North

50-8 And South 50-9), Fired By Crude Oil, Scrubbed Produced Gas, Natural Gas, Propane, Butane, Liquefied Petroleum Gas, Or Any Combination Thereof, Maximum Rated Heat Input 62.5 MMBtu/Hr.

- E) One Steam Generator (Identification Number R1-3-50), Fired By Scrubbed Produced Gas, Natural Gas, Propane, Butane, Liquefied Petroleum Gas, Or Any Combination Thereof, Maximum Rated Heat Input 62.5 MMBtu/Hr.
 - F) One Steam Generator (Identification Number R1-1-20), Fired By Scrubbed Produced Gas, Natural Gas, Or A Combination Thereof, Maximum Rated Heat Input 25 MMBtu/Hr.
- 5. Casing Gas Gathering Systems And Gas Scrubbing Plant, With Scrubbed Gas To Specified Steam Generators (3E Or 3F Above) And/Or Waste Gas Thermal Oxidizer With Steam Generator, Maximum Rated Heat Input 62.5 MMBtu/Hr.
 - 6. Six Crude Oil Heater Treaters (Central Oil Treating Facility Heater Treater Number 1, 2, 3 & 6 And Rosenberg 2E Heater Treater Number 3 & 4), Natural Gas Fired, Maximum Rated Heat Input 7 MMBtu/Hr.
 - 7. Oil Treating Facilities With Crude Oil Loadout, All Tanks And Loading Racks Vented To Vapor Recovery System, Vapor Recovery Systems Discharging Waste Gases To Gas Scrubbing Plant Via Waste Water Treatment Facility Or Via Casing Gas Gathering Systems.
 - 8. Waste Water Treatment Facility With Vapor Recovery System, Discharging Waste Gases to Gas Scrubbing Plant Via Casing Gas Gathering System.
 - 9. Ancillary Equipment:
 - Boiler, Natural Gas Fired, Maximum Rated Heat Input 6 MMBtu/Hr.
 - Gasoline Storage Tank.
 - Sandblasting Equipment.
 - Well Test Station Drain Tanks.

FEDERALLY ENFORCEABLE EMISSION LIMITS AND STANDARDS

- 1. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three (3) minutes in any one (1) hour which is as dark or darker than Ringelmann 1 or equivalent 20% opacity. [District Rule 400]
- 2. Particulate matter shall not exceed 0.15 grains per standard dry cubic foot in any exhaust stream. [District Rule 403]

3. Sulfur compounds calculated as sulfur dioxide (SO_2) shall not exceed 0.2 percent by volume in any exhaust stream. [District Rule 404]
4. Oxides of Nitrogen, calculated as nitrogen dioxide (NO_2), shall not exceed 140 lbs/hr in any exhaust stream. [District Rule 404]
5. Oxides of Nitrogen, calculated as nitrogen dioxide (NO_2), from all gaseous fuel fired equipment shall not exceed 350 ppmv, calculated at 3 percent O_2 , dry. [District Rule 404]
6. The sulfur content of any fuel oil used at the facility shall not exceed 0.5 percent by weight. [District Rule 412]
7. The sulfur content of any gaseous fuel used at the facility shall not contain sulfur compounds, calculated as hydrogen sulfide at standard conditions, in excess of 50 grains per 100 cubic feet. [District Rule 412]
8. Oxides of Sulfur, calculated as sulfur dioxide (SO_2), from the steam generators with scrubber systems while firing crude oil shall not exceed 0.526 lbs/MMBtu. [District Rule 413; District Rule 404 0.2% by weight sulfur limit]
9. No more than 40 pounds per day, nor more than 8 pounds per hour of photochemically reactive solvent containing materials, as defined in District Rule 416, shall be discharged from any individual operation at the facility that uses or applies photochemically reactive solvent containing material. [District Rule 416]
10. No more than 3,000 pounds per day, nor more than 450 pounds per hour of non-photochemically reactive solvent containing materials, as defined in District Rule 416, shall be discharged from any individual operation at the facility that uses or applies non-photochemically reactive solvent containing material. [District Rule 416]
11. Texaco Exploration & Production, Inc. shall operate the storage tank at gasoline dispensing facility with a permanent submerged fill pipe. [District Rule 418]
12. Texaco Exploration & Production, Inc. shall limit emissions of volatile organic compounds by the use of architectural coatings which comply with the requirements of District Rule 426. [District Rule 426]
13. Texaco Exploration & Production, Inc. shall not operate any existing steam drive crude oil production well unless nonmethane hydrocarbon emissions from the wellhead annulus valve are reduced by at least 98 percent by weight. [District Rule 427]

14. Any new steam drive oil production well shall meet the requirements of condition number 13 within four months from the date that the well is defined as a steam drive well. [District Rule 427]
15. Texaco Exploration & Production, Inc. shall install and maintain all piping, valves, fittings, and equipment that are a part of the wellhead annulus valve and hydrocarbon control system for any steam drive crude oil well in a no-leak condition as further provided and described in District Rule 427. A leak is defined as an emission of gaseous organic compounds which causes an appropriate analyzer sampling one centimeter from a source to register as high or higher than it would register if sampling a gas composed of 15,000 ppm methane in air. [District Rule 427]
16. Texaco Exploration & Production, Inc. shall submit an Operator Management Plan to the Air Pollution Control Officer. This plan shall describe the procedures which Texaco Exploration & Production, Inc. intends to follow to comply with the provisions of Rule 427 and must include at least the following [District Rule 427]:
 - 1) detailed schedule of inspections, which provides for inspection of each affected component at least once per 12 month period, except that components with moving parts, including periodically manipulated valves, shall be inspected at least quarterly. The schedule shall indicate estimated inspection periods and frequency;
 - 2) identification of manipulated valves and components with moving parts, which will be inspected quarterly;
 - 3) repair procedures following leak detection;
 - 4) identification of critical process units which cannot be immediately shut down for repair of leaks;
 - 5) identification of any hazard(s) which might affect the safety of inspectors carrying out the provisions of Rule 427; and
 - 6) identification of the resource commitment to the program to implement the Operator Management Plan.

Any modifications to an existing Operator Management Plan relating to changes in inspection or repair procedures must be submitted for, and receive, approval of the Air Pollution Control Officer before they are implemented.

17. Texaco Exploration & Production, Inc. shall repair leaks on all piping, valves, fittings, and equipment that are a part of the wellhead annulus valve and hydrocarbon control system for any steam drive crude oil well within the following timeframes [District Rule 427]:
 - 1) Leaks exceeding 75,000 ppm shall be repaired to a leak-free condition within 15 working days, with monitoring with an appropriate analyzer to verify the leak-free condition within 5 working days after the repair.
 - 2) Leaks exceeding 15,000 ppm shall be repaired to a leak-free condition within 20 working days, with monitoring with an appropriate analyzer to verify the leak-free condition within

5 working days after the repair.

The Air Pollution Control Officer may grant a 10-day extension to the above repair timeframes if the operator demonstrates an adequate necessity for the delay and that sufficient actions will be taken to correct the leak within this time period.

18. The provisions of condition number 17 do not apply to a leaking component which is an essential part of a critical process unit identified in the approved Operator Management Plan, in which case repair shall be accomplished during the next shutdown or process turnaround of the critical process unit, but in no case more than three months from the date of detection. [District Rule 427]
19. Texaco Exploration & Production, Inc. shall limit emissions of volatile organic compounds during solvent cleaning and degreasing operations pursuant to the requirements of District Rule 433. [District Rule 433]
20. Texaco Exploration & Production, Inc. shall comply with the requirements of Sections 61.145 through 61.147 of the National Emission Standard for Asbestos for all demolition and renovation projects. [40 CFR Part 61, Subpart M]
21. Should the facility, as defined in 40 CFR §68.3 become subject to Part 68, then Texaco Exploration & Production, Inc. shall submit a risk management plan (RMP) by the date specified in 40 CFR §68.10. Once subject to Part 68, Texaco Exploration & Production, Inc. shall certify compliance with these requirements as part of the annual compliance certification required by 40 CFR Part 70 and this permit. [40 CFR Part 68]
22. Texaco Exploration & Production, Inc. shall comply with the requirements of 40 CFR Part 82 - Protection of Stratospheric Ozone. [40 CFR Part 82]

TESTING REQUIREMENTS AND PROCEDURES

23. No testing is specified for the generic (Rule 400) opacity requirement from condition number 1 while firing on gaseous fuels. When a specific unit has been fired with crude oil continuously for a period of 120 hours, Texaco Exploration & Production, Inc. shall conduct testing in accordance with the methodology contained in EPA Method 9. The testing shall occur at fourteen day intervals after the initial 120 hours. The averaging/aggregating period contained in District Rule 400 shall be used to verify compliance with condition number 1. [District Rule 218]
24. No testing is specified for the (Rule 403) particulate matter emission standard from condition number 2. The fuel burning equipment is assumed to be in compliance with the particulate matter emission standard based upon the engineering calculations contained in the evaluation

report. If testing is conducted for condition number 2, Texaco Exploration & Production, Inc. should conduct testing in accordance with the methodology contained in EPA Method 5. [District Rule 218]

25. No testing is specified for the (Rule 404) sulfur concentration limit in condition number 3. The fuel burning equipment is assumed to be in compliance with this sulfur concentration limit based upon the engineering calculations contained in the evaluation report. If testing is conducted for condition number 3, Texaco Exploration & Production, Inc. should conduct testing in accordance with the methodology contained in EPA Method 6 or CARB Method 100. [District Rule 218]
26. No testing is specified for the (Rule 404) NO_x (oxides of nitrogen) limit in conditions number 4 and 5. The fuel burning equipment is assumed to be in compliance with these NO_x limits based upon the engineering calculations contained in the evaluation report. If testing is conducted for conditions number 4 and 5, Texaco Exploration & Production, Inc. should conduct testing in accordance with the methodology contained in EPA Method 7 or CARB Method 100. [District Rule 218]
27. Testing of all fuel oil delivered to the facility shall be conducted prior to or upon receipt of the fuel, or in lieu of testing a manufacturers certification of the sulfur content of the fuel oil shall be supplied at the time of delivery. Texaco Exploration & Production, Inc. shall conduct testing in accordance with ASTM D1552-83, ASTM D1266-87 or ASTM D2622-87 or shall receive certification as to the sulfur content of the fuel from the manufacturer to verify compliance with condition number 6. [District Rule 218]
28. Testing of the casing gas downstream of the Gas Scrubbing Plant shall be conducted on a quarterly basis. Texaco Exploration & Production, Inc. shall conduct testing in accordance with ASTM D1137-53, ASTM 1072-80 or ASTM D129-64 to verify compliance with condition number 7. [District Rule 218]
29. Performance tests of each steam generator combusting crude oil shall be conducted quarterly. Texaco Exploration & Production, Inc. shall conduct performance tests in accordance with EPA Method 20 or CARB Method 100 for SO₂ to verify compliance with condition number 8. [District Rule 218]
30. An annual performance test of all equipment firing produced gas shall be conducted no later than December 31 of each year. Texaco Exploration & Production, Inc. shall conduct performance tests in accordance with EPA Methods 2, 2A, 2C, or 2D for measuring flow rates and EPA Methods 25, 25A, or 25B for measuring the total gaseous organic concentrations at the inlet and outlet of the combustion device to verify compliance with condition number 13. Texaco Exploration & Production, Inc. shall furnish the District written results within forty-five (45) days of test completion. If the testing is performed by other than District personnel, a testing protocol shall be submitted to the District no later than 30 days prior to testing, and District notification at least 10 days prior to the actual date of testing shall be provided so that a District observer can be present. [District Rule 218, District Rule 427]

31. Annual leak testing shall be conducted according to the schedule contained in the Operator Management Plan required in condition number 16. Texaco Exploration & Production, Inc. shall conduct testing in accordance with EPA Method 21 for Determination of Volatile Organic Compound Leaks to verify compliance with condition numbers 15 and 17. [District Rule 427]

MONITORING AND RECORD KEEPING REQUIREMENTS

32. Should Texaco Exploration & Production, Inc. use organic solvents subject to Rule 416, records shall be maintained to verify compliance with the usage limits specified in conditions 9 and 10. [District Rule 416]
33. Texaco Exploration & Production, Inc. shall maintain records showing the quantity of all gasoline delivered to the gasoline storage tank. [District Rule 418]
34. Texaco Exploration & Production, Inc. shall maintain a log covering at least the preceding 12-month period of all inspections performed to verify compliance with conditions 15 and 17. The log shall include inspection dates, components found leaking and emission levels (in ppm) and repair and verification dates. [District Rule 427]
35. Texaco Exploration & Production, Inc. shall maintain a monthly log of the facility-wide total volume of make-up solvent used, and waste solvent disposed of or recycled, for all cleaning devices using volatile organic compounds for solvent cleaning and degreasing. [District Rule 433]

The record keeping provisions of this condition do not apply to remote reservoir cold cleaners which are serviced by an independent contractor. For such remote cold cleaners, evidence of service shall be maintained.

36. As applicable Texaco Exploration & Production, Inc. shall maintain the following general records of the monitoring information required by this permit [District Rule 218]:
- A) the date and time of sampling or measurements;
 - B) the date(s) analyses were performed;
 - C) the company or entity that performed the analyses;
 - D) the analytical techniques or methods used;
 - E) the results of such analyses;
 - F) the operating conditions existing at the time of sampling or measurement; and
 - G) the records of quality assurance for continuous monitoring systems (including, but not limited to quality control activities, audits, and calibration drift checks) and source testing methods.
37. Texaco Exploration & Production, Inc. shall maintain records on the occurrence and duration of any malfunction in the operation of the equipment under this permit. [District Rule 218]

38. Texaco Exploration & Production, Inc. shall retain records of all required monitoring data and support information for a period of at least five (5) years from the date of the monitoring, sample collection, measurement, report, and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. [District Rule 218]

REPORTING REQUIREMENTS

39. Texaco Exploration & Production, Inc. shall report breakdowns which results in the inability to comply with any emission standard or requirement contained on this permit to the Air Pollution Control Officer (APCO) within one hour of the occurrence, this one hour period may be extended up to six hours for good cause by the APCO. The APCO may elect to take no enforcement action if Texaco Exploration & Production Inc. demonstrates to the APCO's satisfaction that a breakdown condition exists.

The estimated time for repair of the breakdown shall be supplied to the APCO within twenty-four (24) hours of the occurrence and a written report shall be supplied to the APCO within five (5) days of the occurrence. This report shall include at a minimum [District Rule 214]:

- A) a statement that the condition or failure has been corrected and the date of correction; and
 - B) a description of the reason(s) for the occurrence; and
 - C) a description of the corrective measures undertaken and/or to be undertaken to avoid such an occurrence in the future; and
 - D) an estimate of the emissions caused by the condition or failure.
40. Texaco Exploration & Production, Inc. shall submit an annual report to the District by May 1 of each year which includes a tabulation of the record keeping required under condition number 33 and a schedule of repair for leaking components, and a currently updated version of the Operator Management Plan as required by District Rule 427 and condition 16. [District Rule 427]
41. Texaco Exploration & Production, Inc. shall submit quarterly reports to the District of all wells connected to a vapor recovery system. [District Rule 427]
42. Texaco Exploration & Production, Inc. shall submit semiannual monitoring reports to the District, in a District approved format, no later than August 15 for the period of January 1 through June 30 and no later than February 15 for the period of July 1 through December 31. [District Rule 218]

These reports shall include at a minimum:

- A) the time intervals, date and magnitude of excess emissions, nature and cause of the excess (if known), corrective actions and preventative measures adopted;

and

- B) the averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard for the pollutant in question; and
- C) all information pertaining to any monitoring as required by the permit; and
- D) a negative declaration specifying when no excess emissions occurred.

43. Texaco Exploration & Production, Inc. shall submit an annual compliance certification report to the District and U.S. EPA, in a District approved format, no later than February 15 for the period of January 1 through December 31 of the preceding year. [District Rule 218]

This report shall include a written statement from the responsible official which certifies the truth, accuracy, and completeness of the report and shall include at a minimum:

- A) identification of each term or condition of the permit that is the basis of the certification; and
- B) the compliance status; and
- C) whether compliance was continuous or intermittent; and
- D) the method(s) used for determining the compliance status of the source, currently and over the reporting period.

GENERAL CONDITIONS

44. Texaco Exploration & Production, Inc. shall comply with all conditions of this federal operating permit. Any noncompliance with a permit condition constitutes a violation of the Federal Clean Air Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. [District Rule 218]
45. In an enforcement action, the fact that Texaco Exploration & Production, Inc. would have to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit is not a defense. [District Rule 218]
46. This permit may be modified, revoked, reopened and reissued, or terminated for cause as determined by the District. The filing of a request by Texaco Exploration & Production, Inc. for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. [District Rule 218]
47. This permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of

personal rights, nor any infringement of federal, state, or local laws or regulations. [District Rule 218]

48. Texaco Exploration & Production, Inc. shall furnish to the District, within a reasonable time, any information that the District may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit, or to determine compliance with the permit. Upon request, Texaco Exploration & Production, Inc. shall also furnish to the District copies of records required to be retained by this permit. [District Rule 218]
49. For applicable requirements that will become effective during the permit term, Texaco Exploration & Production, Inc. shall meet such requirements on a timely basis unless a more detailed schedule is expressly required by the applicable requirement. [District Rule 218]
50. Any document submitted to the District pursuant to this permit shall contain certification by the responsible official of truth, accuracy and completeness. All certifications shall state that based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. Texaco Exploration & Production, Inc. shall promptly, upon discovery, report to the District a material error or omission in these records, reports, plans, or other documents. [District Rule 218]
51. Any violation of any emission standard to which the stationary source is required to conform, as indicated by the records of the monitoring device, shall be reported by Texaco Exploration & Production, Inc. to the District within 96 hours after such occurrence. The violation report shall include the time intervals, date and magnitude of excess emissions; nature and cause of the excess (if known), corrective actions and preventive measures adopted. [District Rule 218]
52. Upon any administrative or judicial challenge, all the emission limits, specific and general conditions, monitoring, record keeping, and reporting requirements of this permit, except those being challenged, remain valid and must be complied with. [District Rule 218]
53. For this federal operating permit to remain valid through the permit term of five years from the date of issuance, Texaco Exploration & Production, Inc. shall pay an annual emission fee based upon the requirements of District Rule 308. [District Rule 218]
54. Texaco Exploration & Production, Inc. shall have available at the facility at all times a copy of this federal operating permit. [District Rule 218]
55. For protection from enforcement action based upon an emergency, as defined in District Rule 218, the responsible official for Texaco Exploration & Production, Inc. shall submit to the District relevant evidence which demonstrates [District Rule 218]:
 - A) an emergency occurred; and
 - B) that Texaco Exploration & Production, Inc. can identify or is attempting to

identify the cause(s) of the emergency; and

- C) that the facility was being properly operated at the time of the emergency; and
- D) that all steps were taken to minimize the emissions resulting from the emergency; and
- E) within two working days of the emergency event, Texaco Exploration & Production, Inc. provided the District with a description of the emergency and any mitigating or corrective actions taken.

56. Upon presentation of credentials, Texaco Exploration & Production, Inc. shall allow the District, the ARB, the EPA, or an authorized representative, to perform the following [District Rule 218]:

- A) enter upon the premises where the federal operating permit source is located or in which any records are required to be kept under the terms and conditions of this federal operating permit;
- B) to have access to and copy any records required to be kept under the terms and conditions of this federal operating permit;
- C) to inspect any equipment, operation, or process described or required in this federal operating permit; and,
- D) to sample emissions from the source.
